

Abstract

A network management system for a multi-layer network having multiple architectural or technological domains includes an inter-domain configuration manager arranged between a set of one or more network service management applications and a set of network element domain managers, each of the domain managers being associated with a particular domain of the multi-layer network. The configuration manager implements network service design and provisioning functions across the domains of the network in conjunction with stored connectivity information characterizing the multi-layer network. The network management system further includes an inter-domain fault manager and an inter-domain capacity manager, which provide respective fault management and transport capacity management functions across the domains of the multi-layer network. The inter-domain configuration manager, inter-domain fault manager and inter-domain capacity manager may be interfaced to the set of network service management applications and the set of network element domain managers through corresponding published Common Object Request Broker Architecture (CORBA) Application Programming Interface (APIs).